

ABSTRACT

A bumper system includes an elongated beam configured to be operatively mounted to the frame of the vehicle. Also included is a foam portion that extends along a portion of the beam and a fascia surrounding the foam portion. The fascia and the foam portion are operatively attached to the beam. The foam portion has a plurality of recesses formed therein which extend through a predetermined thickness of an inside portion of the foam portion. An integrated cylindrical cell matrix is disposed with the recesses and is configured to absorb energy resulting from impact force applied to an external portion of the bumper.